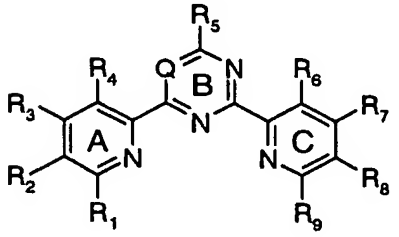
What is claimed is:

1. Use, as a catalyst for oxidation reactions, of at least one metal complex compound of formula (1)

$$[L_nMe_mX_p]^zY_q \qquad (1),$$

wherein
Me is manganese, titanium, iron, cobalt, nickel or copper,
X is a coordinating or bridging radical,
n and m are each independently of the other an integer having a value of from 1 to 8,
p is an integer having a value of from 0 to 32,
z is the charge of the metal complex,
Y is a counter-ion,
q = z/(charge of Y), and
L is a ligand of formula (2)



(2),

wherein
Q is N or CR_{10},
R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10} are each independently of the others hydrogen; unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl; cyano; halogen; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein
R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein
R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; -$N^{\oplus}R_{13}R_{14}R_{15}$;
-(C_1-C_6alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$;
–N[(C_1-C_6alkylene)-$NR_{13}R_{14}$]$_2$; –N(R_{12})-(C_1-C_6alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$;

$-N[(C_1\text{-}C_6alkylene)\text{-}N^{\oplus}R_{13}R_{14}R_{15}]_2$; $\text{-}N(R_{12})\text{-}N\text{-}R_{13}R_{14}$ or $-N(R_{12})\text{-}N^{\oplus}R_{13}R_{14}R_{15}$, wherein
R_{12} is as defined above and
R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted $C_1\text{-}C_{18}$alkyl or unsubstituted or substituted aryl, or
R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

2. Use according to claim 1, wherein Me is manganese in the oxidation state II, III, IV or V.

3. Use according to claim 1, wherein Me is iron in the oxidation state II, III or IV.

4. Use according to any one of claims 1, 2 and 3, wherein
X is CH_3CN, H_2O, F^-, Cl^-, Br^-, HOO^-, O_2^{2-}, O^{2-}, $R_{16}COO^-$, $R_{16}O^-$, $LMeO^-$ or $LMeOO^-$, wherein
R_{16} is hydrogen, $\text{-}SO_3C_1\text{-}C_4$alkyl or unsubstituted or substituted $C_1\text{-}C_{18}$alkyl or substituted or unsubstituted aryl, and L and Me are as defined in claim 1.

5. Use according to any one of claims 1 to 4, wherein
Y is $R_{17}COO^-$, ClO_4^-, BF_4^-, PF_6^-, $R_{17}SO_3^-$, $R_{17}SO_4^-$, SO_4^{2-}, NO_3^-, F^-, Cl^-, Br^-, I^-, citrate, tartrate or oxalate, wherein
R_{17} is hydrogen or unsubstituted or subsituted $C_1\text{-}C_{18}$alkyl or substituted or unsubstituted aryl.

6. Use according to any one of claims 1 to 5, wherein
n is an integer having a value of from 1 to 4, especially 1 or 2.

7. Use according to any one of claims 1 to 6, wherein
m is an integer having a value of 1 or 2, especially 1.

8. Use according to any one of claims 1 to 7, wherein
p is an integer having a value of from 0 to 4, especially 2.

9. Use according to any one of claims 1 to 8, wherein
z is an integer having a value of from 8- to 8+.

10. Use according to any one of claims 1 to 9, wherein aryl is phenyl or naphthyl each unsubstituted or substituted by C_1-C_4alkyl, C_1-C_4alkoxy, halogen, cyano, nitro, carboxy, sulfo, hydroxy, amino, N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy.

11. Use according to any one of claims 1 to 10, wherein
the 5-, 6- or 7-membered ring formed by R_{13} and R_{14} together with the nitrogen atom linking them is an unsubstituted or C_1-C_4alkyl-substituted pyrrolidine, piperidine, piperazine, morpholine or azepane ring wherein the nitrogen atoms may be quaternised.

12. Use according to any one of claims 1 to 11, wherein
R_5 is C_1-C_{12}alkyl; phenyl unsubstituted or substituted by C_1-C_4alkyl, C_1-C_4alkoxy, halogen, cyano, nitro, carboxy, sulfo, hydroxy, amino, N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy; cyano; halogen; nitro; $-COOR_{11}$ or $-SO_3R_{11}$ wherein
R_{11} is in each case hydrogen, a cation, C_1-C_{12}alkyl, unsubstituted phenyl or phenyl substituted as indicated above; $-SR_{12}$, $-SO_2R_{12}$ or $-OR_{12}$ wherein
R_{12} is in each case hydrogen, C_1-C_{12}alkyl, unsubstituted phenyl or phenyl substituted as indicated above; $-NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; $-N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; $-N(R_{12})$-(C_1-C_6alkylene)-$NR_{13}R_{14}$; $-N(R_{12})$-(C_1-C_6alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; $-N(R_{12})-N-R_{13}R_{14}$ or $-N(R_{12})-N^{\oplus}R_{13}R_{14}R_{15}$, wherein
R_{12} may have one of the above meanings and
R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen, unsubstituted or hydroxy-substituted C_1-C_{12}alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or
R_{13} and R_{14}, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring unsubstituted or substituted by at least one unsubstituted C_1-C_4alkyl and/or substituted C_1-C_4alkyl, wherein the nitrogen atom may be quaternised, and R_1, R_2, R_3, R_4, R_6, R_7, R_8, R_9 and R_{10} may be as defined in claim 1 or are hydrogen.

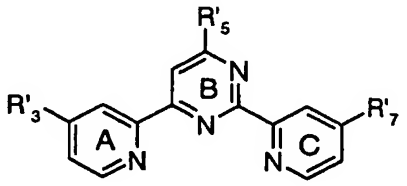
13. Use according to any one of claims 1 to 12, wherein
R_5 is phenyl unsubstituted or substituted by C_1-C_4alkyl, C_1-C_4alkoxy, halogen, phenyl or by hydroxy; cyano; nitro; $-COOR_{11}$ or $-SO_3R_{11}$ wherein

R_{11} is in each case hydrogen, a cation, C_1-C_4alkyl or phenyl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein R_{12} is in each case hydrogen, C_1-C_4alkyl or phenyl; -$N(CH_3)$-NH_2 or -NH-NH_2; amino; N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety; or an unsubstituted or C_1-C_4alkyl-substituted pyrrolidine, piperidine, piperazine, morpholine or azepane ring.

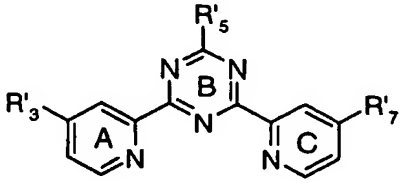
14. Use according to any one of claims 1 to 13, wherein
R_5 in L is C_1-C_4alkoxy; hydroxy; hydrazine; amino; N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety; or an unsubstituted or C_1-C_4alkyl-substituted pyrrolidine, piperidine, piperazine, morpholine or azepane ring.

15. Use according to any one of claims 1 to 14, wherein R_1, R_2, R_3, R_4, R_6, R_7, R_8, R_9 and R_{10} in L have the definitions given for R_5 in any one of claims 12 to 14, but those radicals may additionally be hydrogen.

16. Use according to any one of claims 1 to 15, wherein L is a compound of formula (3a) and/or (3b)



(3a)



(3b)

wherein R'_3, R'_5 and R'_7 have the definitions given in claims 1 to 15.

17. Use according to any one of claims 1 to 11, which comprises the use, as a catalyst for oxidation reactions, of at least one metal complex compound of formula (1')

$[L'_nMe_mX_p]^zY_q$ (1'),

wherein
Me is manganese, titanium, iron, cobalt, nickel or copper,
X is a coordinating or bridging radical,
n and m are each independently of the other an integer having a value of from 1 to 8,

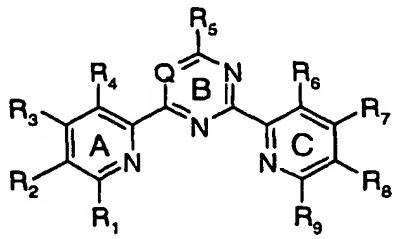
p is an integer having a value of from 0 to 32,

z is the charge of the metal complex,

Y is a counter-ion,

q = z/(charge of Y), and

L' is a ligand of formula (2')



(2')

wherein

Q is N or CR_{10},

R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10} are each independently of the others hydrogen; unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl; cyano; halogen; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; -$N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$;–N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$;–N[($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$]$_2$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$;–N[($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$]$_2$; -N($R_{12}$)-N-$R_{13}R_{14}$ or –N(R_{12})-$N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

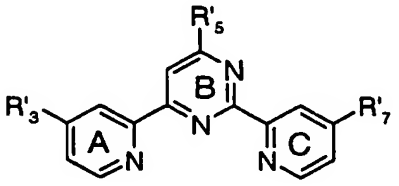
with the proviso that

at least one of the substituents R_1 to R_{10} contains a quaternised nitrogen atom that is not bonded directly to one of the three rings A, B and/or C.

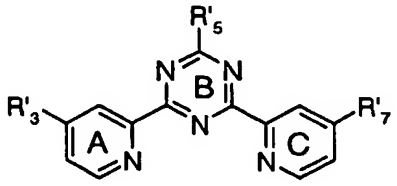
18. Use according to claim 17, wherein R_5 is not hydrogen.

19. Use according to either claim 17 or claim 18, wherein
R_5 in L' is phenyl unsubstituted or substituted by C_1-C_4alkyl, C_1-C_4alkoxy, halogen, phenyl or by hydroxy; cyano; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein
R_{11} is in each case hydrogen, a cation, C_1-C_4alkyl or phenyl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein
R_{12} is in each case hydrogen, C_1-C_{14}alkyl or phenyl; -$N(CH_3)$-NH_2 or -NH-NH_2; amino; N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, wherein the nitrogen atoms, especially the nitrogen atoms not bonded to one of the three rings A, B or C, may be quaternised; N-mono- or N,N-di-C_1-C_4alkyl-$N^{\oplus}R_{13}R_{14}R_{15}$ unsubstituted or substituted by hydroxy in the alkyl moiety, wherein
R_{13}, R_{14} and R_{15} are each independently of the others hydrogen or unsubstituted or hydroxy-substituted C_1-C_{12}alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or
R_{13} and R_{14}, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring unsubstituted or substituted by at least one C_1-C_4alkyl or by at least one unsubstituted C_1-C_4alkyl and/or substituted C_1-C_4alkyl, wherein the nitrogen atom may be quaternised; N-mono- or N,N-di-C_1-C_4alkyl-$NR_{13}R_{14}$ unsubstituted or substituted by hydroxy in the alkyl moiety, wherein
R_{13} and R_{14} may be as defined above.

20. Use according to any one of claims 17 to 19, wherein L' is a compound of formula (3'a) and/or (3'b)



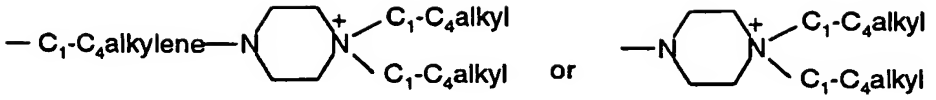
(3'a)



(3'b)

wherein R'_3, R'_5 and R'_7 have the definitions and preferred meanings indicated above for R_5, but R'_3 and R'_7 may additionally be hydrogen.

21. Use according to any one of claims 17 to 20, wherein
(i) at least one of the substituents R'_3, R'_5 and R'_7 is one of the radicals



wherein the unbranched or branched alkylene group may be unsubstituted or substituted, and wherein the alkyl groups, which are unbranched or branched independently of one another, may be unsubstituted or substituted and wherein the piperazine ring may be unsubstituted or substituted.

22. Use according to any one of claims 17 to 21, wherein L' contains precisely 1 quaternised nitrogen atom.

23. Use according to any one of claims 17 to 22, wherein L' contains precisely 2 or precisely 3 quaternised nitrogen atoms.

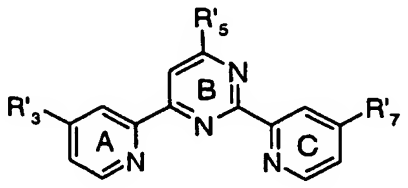
24. Use according to any one of claims 1 to 23, wherein the oxidation is carried out using molecular oxygen and/or air.

25. A metal complex compound of formula (1a)

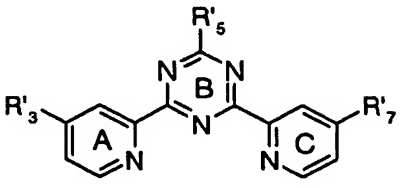
$[L_nMe_mX_p]^zY_q$ (1a),

wherein all substituents are as defined in any one of claims 1 to 16.

26. A metal complex compound of formula (1a) according to claim 25, wherein L is a compound of formula (3a) and/or (3b)



(3a)



(3b)

wherein

R'_5 is C_1-C_4alkoxy; hydroxy; N-mono- or N,N-di-C_1-C_4alkylamino substituted by hydroxy in the alkyl moiety; or $-NR_{13}R_{14}$; $-(C_1$-C_6alkylene$)-NR_{13}R_{14}$;

$-N(R_{12})-(C_1-C_6alkylene)-NR_{13}R_{14}$; $-N[(C_1-C_6alkylene)-NR_{13}R_{14}]_2$; or $-N(R_{12})-N-R_{13}R_{14}$, wherein

R_{12} is hydrogen; C_1-C_{12}alkyl or unsubstituted phenyl or phenyl substituted by (substituted in the alkyl moiety by hydroxy) N-mono- or N,N-di-C_1-C_4alkylamino-, N-phenylamino-, N-naphthylamino-, phenyl-, phenoxy- or naphthyloxy, and

R_{13} and R_{14} are each independently of the other hydrogen, unsubstituted or hydroxy-substituted C_1-C_{12}alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring that is unsubstituted or substituted by at least one unsubstituted C_1-C_4alkyl and/or substituted C_1-C_4alkyl, especially a pyrrolidine, piperidine, piperazine, morpholine or azepane ring, and

R'_3 and R'_7 are each independently of the other hydrogen; C_1-C_4alkoxy; hydroxy; N-mono- or N,N-di-C_1-C_4alkylamino substituted by hydroxy in the alkyl moiety; or $-NR_{13}R_{14}$; $-(C_1-C_6alkylene)-NR_{13}R_{14}$; $-N(R_{12})-(C_1-C_6alkylene)-NR_{13}R_{14}$; $-N[(C_1-C_6alkylene)-NR_{13}R_{14}]_2$; or $-N(R_{12})-N-R_{13}R_{14}$, wherein

R_{12} is hydrogen; C_1-C_{12}alkyl or unsubstituted or (substituted in the alkyl moiety by hydroxy) N-mono- or N,N-di-C_1-C_4alkylamino-, N-phenylamino-, N-naphthylamino-, phenyl-, phenoxy- or naphthyloxy-substituted phenyl, and

R_{13} and R_{14} are each independently of the other hydrogen; unsubstituted or hydroxy-substituted C_1-C_{12}alkyl, unsubstituted phenyl or phenyl substituted as indicated above, or

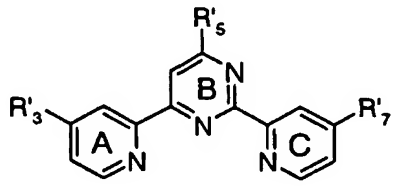
R_{13} and R_{14}, together with the nitrogen atom linking them, form a pyrrolidine, piperidine, piperazine, morpholine or azepane ring that is unsubstituted or substituted by at least one unsubstituted C_1-C_4alkyl and/or substituted C_1-C_4alkyl, especially a pyrrolidine, piperidine, piperazine, morpholine or azepane ring.

27. A metal complex compound of formula (1'a)

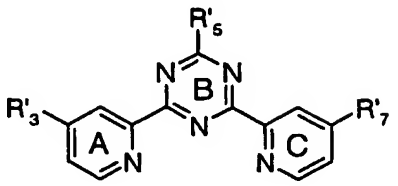
$[L'_nMe_mX_p]^zY_q$ (1'a),

wherein all substituents are as defined in claims 17 to 23.

28. A metal complex compound of formula (1'a) according to claim 27, wherein L' is a compound of formula (3'a) and/or (3'b)



(3'a)

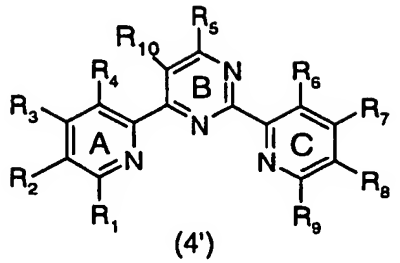


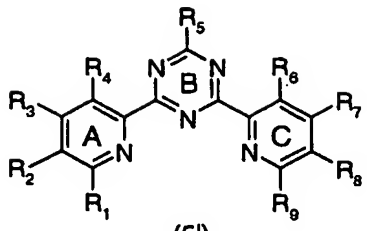
(3'b)

wherein R'_3, R'_5 and R'_7 have the definitions and preferred meanings given above for R_5 in claims 17 to 23, but R'_3 and R'_7 may additionally be hydrogen, with the proviso that

(i) at least one of the substituents R'_3, R'_5 and R'_7 is a radical
$-(C_1\text{-}C_6\text{alkylene})\text{-}N^{\oplus}R_{13}R_{14}R_{15}$; $-N(R_{12})\text{-}(C_1\text{-}C_6\text{alkylene})\text{-}N^{\oplus}R_{13}R_{14}R_{15}$;
$-N[(C_1\text{-}C_6\text{alkylene})\text{-}N^{\oplus}R_{13}R_{14}R_{15}]_2$; $-N(R_{12})\text{-}N^{\oplus}R_{13}R_{14}R_{15}$, wherein
R_{12} is as defined above and
R_{13}, R_{14} and R_{15} are each independently of the others hydrogen or unsubstituted or substituted $C_1\text{-}C_{18}$alkyl or substituted or unsubstituted aryl, or
R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms; or
$-NR_{13}R_{14}$; $-(C_1\text{-}C_6\text{alkylene})\text{-}NR_{13}R_{14}$; $-N(R_{12})\text{-}(C_1\text{-}C_6\text{alkylene})\text{-}NR_{13}R_{14}$;
$-N[(C_1\text{-}C_6\text{alkylene})\text{-}NR_{13}R_{14}]_2$; $-N(R_{12})\text{-}N\text{-}R_{13}R_{14}$, wherein
R_{12} and R_{15} are as defined above and R_{13} and R_{14}, together with the nitrogen atom linking them, form a 5-, 6- or 7-membered ring which may be unsubstituted or substituted by at least one unsubstituted $C_1\text{-}C_4$alkyl and/or substituted $C_1\text{-}C_4$alkyl and may contain further hetero atoms, wherein at least one nitrogen atom not bonded to one of the rings A, B and/or C is quaternised.

29. A ligand L' according to any one of claims 17 to 23, 27 and 28 of formula (4') or (5')


(4')


(5')

wherein

R_1, R_2, R_3, R_4, R_5, R_6, R_7, R_8, R_9 and R_{10} are each independently of the others hydrogen; unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; cyano; halogen; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$;

-$N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$;

–N[(C_1-C_6alkylene)-$NR_{13}R_{14}$]$_2$; –N(R_{12})-(C_1-C_6alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$;

–N[(C_1-C_6alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$]$_2$; -N($R_{12}$)-N-$R_{13}R_{14}$ or –N(R_{12})-$N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

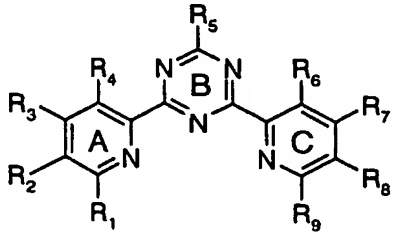
R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

with the proviso that

at least one of the substituents R_1 to R_{10} contains a quaternised nitrogen atom that is not bonded directly to one of the three rings A, B and/or C.

30. A ligand L according to any one of claims 1 to 16, 25 and 26 of formula (6)


(6)

wherein

R_1, R_2, R_4, R_5, R_6, R_7, R_8 and R_9 are each independently of the others hydrogen; unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; cyano; halogen; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; -$N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$; –N[($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$]$_2$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N[($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$]$_2$; -N($R_{12}$)-N-$R_{13}R_{14}$; or –N($R_{12}$)-$N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

and

R_3 is phenyl substituted by C_1-C_4alkyl, C_1-C_4alkoxy, hydroxy, sulfo, sulfato, halogen, cyano, nitro, carboxy, amino, N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy, substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -CH_3; C_3-C_{18}alkyl; cyano; halogen; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein

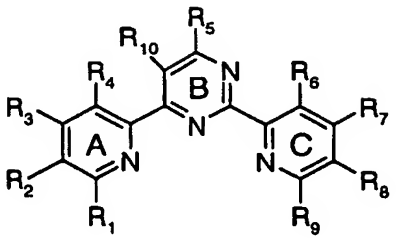
R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; -$N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$; -N[($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$]$_2$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; -N[($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$]$_2$; -N($R_{12}$)-N-$R_{13}R_{14}$; or –N($R_{12}$)-$N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

31. A ligand L according to any one of claims 1 to 16, 25 and 26 of formula (7)



(7)

wherein

R_1, R_2, R_3, R_4, R_5, R_6, R_8, R_9 and R_{10} are each independently of the others hydrogen; unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; cyano; halogen; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted substituted or unsubstituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; -$N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$; –N[($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$]$_2$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N[($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$]$_2$; -N($R_{12}$)-N-$R_{13}R_{14}$ or –N(R_{12})-$N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms,

and

R_7 is phenyl substituted by C_1-C_4alkyl, C_1-C_4alkoxy, hydroxy, sulfo, sulfato, halogen, cyano, nitro, carboxy, amino, N-mono- or N,N-di-C_1-C_4alkylamino unsubstituted or substituted by hydroxy in the alkyl moiety, N-phenylamino, N-naphthylamino, phenyl, phenoxy or by naphthyloxy, substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -CH_3; C_3-C_{18}alkyl; cyano; F; Br; I; nitro; -$COOR_{11}$ or -SO_3R_{11} wherein

R_{11} is in each case hydrogen, a cation or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl; -SR_{12}, -SO_2R_{12} or -OR_{12} wherein

R_{12} is in each case hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or unsubstituted or substituted aryl; -$NR_{13}R_{14}$; -(C_1-C_6alkylene)-$NR_{13}R_{14}$; -$N^{\oplus}R_{13}R_{14}R_{15}$; -($C_1$-$C_6$alkylene)-$N^{\oplus}R_{13}R_{14}R_{15}$; –N($R_{12}$)-($C_1$-$C_6$alkylene)-$NR_{13}R_{14}$;

$-N[(C_1-C_6alkylene)-NR_{13}R_{14}]_2$; $-N(R_{12})-(C_1-C_6alkylene)-N^{\oplus}R_{13}R_{14}R_{15}$; $-N[(C_1-C_6alkylene)-N^{\oplus}R_{13}R_{14}R_{15}]_2$; $-N(R_{12})-N-R_{13}R_{14}$; or $-N(R_{12})-N^{\oplus}R_{13}R_{14}R_{15}$, wherein

R_{12} is as defined above and

R_{13}, R_{14} and R_{15} are each independently of the other(s) hydrogen or unsubstituted or substituted C_1-C_{18}alkyl or substituted or unsubstituted aryl, or

R_{13} and R_{14}, together with the nitrogen atom linking them, form an unsubstituted or substituted 5-, 6- or 7-membered ring which may contain further hetero atoms.

32. A detergent, cleaning, disinfecting or bleaching composition containing

I) from 0 to 50% A) of an anionic surfactant and/or B) of a non-ionic surfactant,

II) from 0 to 70% C) of a builder substance,

III) from 1 to 99% D) of a peroxide,

IV) E) at least one metal complex compound of formula (1) and/or (1') of any one of claims 25 to 28 in an amount that, in the liquor, gives a concentration of from 0.5 to 50 mg/litre of liquor, preferably from 1 to 30 mg/litre of liquor, when from 0.5 to 20 g/litre of the detergent, cleaning, disinfecting or bleaching agent are added to the liquor, the percentages in each case being percentages by weight, based on the total weight of the composition, and

V) water ad 100%.

33. A solid formulation containing

a) from 1 to 99% by weight of a metal complex compound of formula (1) and/or (1') of any one of claims 25 to 28,

b) from 1 to 99% by weight of a binder,

c) from 0 to 20% by weight of an encapsulating material,

d) from 0 to 20% by weight of a further additive and

e) from 0 to 20% by weight of water.

34. A solid formulation according to claim 33, which is in the form of tablets or granules.